MPC 4ID8-I

MPC 4ID8-I Motion Power Controller

Compliant with BGV D8 and D8 Plus/igvw SQ P2

The Motion Power Controller 4ID8-I is a further development of the established industry standard, the MPC 4ED8, and constitutes an intelligent controller unit for asynchronous, direct control, three-phase drives such as the Movecat ECO, ECO*lite*, PLUS and PLUS*lite* chain hoists complying with the BGV D8 and D8 Plus standards.
The MPC 4ID8-I is an independent control platform by means of which up to four hoists or drives can be controlled safely and reliably, no additional control devices being required. A large, backlit LCD is used to display all operating conditions and parameters. Integrated operation and safety processors supervise all the functions, whereby the general evaluation of all parameters with implications for safety, including all run conditions, is implemented by a prioritised safety read-back chain. An operating fault invariably leads to the system being shut down. All the requisite relays and safety circuits for the use of four hoists are integrated.

In its basic configuration, the system complies with the BGV D8 and D8 Plus standards in accordance with igvw SQ P2. The modular design of the system enables it to be adapted to the requirements of the user. The MPC 4ID8-I is system-compatible with existing MPC 4ED8 controllers and can be operated not only in combination but also with existing MRC controllers by means of the tried-and-tested Movecat Link system. Furthermore, the MPC 4ID8-I is ready for I-Motion network operation, and up to 8 devices can be operated in direct link mode or up to 60 devices via the I-Motion network in local group operation in combination with a central controller such as one from the I-Motion series.

The easily distinguished input keys combine with rotary encoders to make the configuration and use of the controller intuitive and simple. The operating structure and output displays are logical, intuitive and free from ambiguity. Even complex target* and group* (*provided the hoist is equipped suitably) runs are easy to program and execute.

The MPC 4ID8-I is recommended for use with the ECO, ECO*lite*, PLUS and PLUS*lite* hoists for professional applications in the trade fair, events and entertainment, studio and touring sectors.

FUNCTIONS:

- BGV D8 and D8 Plus-compliant (in accordance with SR 2.0 VPLT)
- controls and supervises up to four direct control hoists such as the ECO, ECO*lite*, PLUS or PLUS*lite* chain-hoists or adapted asynchronous three-phase drives
- self-testing of all relevant functions prior to system launch
- suitable for night use: all keys and input devices plus LCD illuminated
- simple intuitive operation implementation of basic functions (e.g. raising and lowering of hoists); no configuration necessary
- monitoring and display of all operating conditions such as operating voltage and phase; motor protection switch, run direction and main protection on "stick" and correct run direction, link system, position*, operation* and emergency limit*, temperature* as well as dynamic load evaluation*
- run direction and nominal speed tested during encoder operation; fault evaluation of individual hoists and connected group
- selectable user hierarchy with passwords or user name
- selection between possible Movecat hoists with data stored in database
- management of open and closed drive groups
- input of software operation limit positions* for raising and lowering
- group-transcending error monitoring of up to eight MPC 4ID8 controllers in linked mode and up to 60 MPC 4IC1 when networked
- programming and playback of complex sequences of events*
- during synchronous path „group runs", the tolerance of individual hoists and groups is programmable
- programmable „group synchronous" runs* (simultaneous raising and lowering of pre-selected hoists) with multiple groups
- „target runs"* on position
- simple encoder reference run* for calibration
- auxiliary overload determination through evaluation of nominal speed during encoder operation*
- simple setup option for under-* and overload definitions* including evaluation of the summed load of a load group*
- targeted emergency runs in conjunction with password and bypass switch
- memory function for all parameters - even after a power failure
- log file can be displayed locally or on a PC monitor*
- integration in I-Motion-Network-Bus-System
- configuration* via external PC with 100 Mbit/s network card

Features

- backlit liquid crystal display
- backlit keys and encoder
- LED device status display
- four adjustable motor protection switches
- emergency stop button, illuminates when activated
- backlit GO (release) key
- main switch for central start-up incl. bypass function
- function keys 1-4 for simple, intuitive operation and direct selection of drives including their run direction
- high-resolution rotary encoder with key function for data input
- dual channel incremental encoder input* with run direction recognition; high-resolution* alternative absolute value encoder input SSI high-resolution*
- four inputs for Movecat load measuring cells (LMS)*
- eight digital inputs and four outputs for auxiliary functions e.g. limit switches
- I-Motion network input; network addresses software-programmable
- robust metal housing with two handles

*the availability of optional functions depends upon how the controller and drive are equipped

Technical specifications

- Input 16 A CEE with phase-convertible plug (32A CEE HP version)
- XLR MX7 and XLR FX6 link system incl. dummy plug
- drive output connector HAN E 16 (optional 19-pin Socapex)
- MRC input connector HAN 36 modular
- NDC C-14F input connector for the I-Motion Network
- I-/A- encoder input SUB-D25 female
- I/O SUB-D25 male input connector
- load measurement system inputs: SUB-D15 female
- max. 1 kW per drive, (HP versions available: 2 or 4 kW)
- dimensions: 19", 3 U, T 470 mm (without header strip)
- weight: 16,4 kg
- CE; BGV D8 and D8 Plus (igvw SQ P2) compliance

Options / accessories

- HP-Version (4 x 2 kW or 4 x 4 kW motor)
- plug-in card for I-/A encoder (alternative)
- plug-in card for dynamic load measurement system
- MRC D8 series remote control
- I-MOTION controller series
- I-MOTION NDB-6/12, network distribution-box

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